

AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application. Please cancel claims 4, 13-15, 24, 25, and 54 without prejudice or disclaimer, and amend claims 1, 3, 16-21, 38, 43, 47, 49, 51, 53, 55, and 56, as follows:

Claim 1 (Currently Amended): A composition comprising kaolin having a shape factor ranging from about 32 to 49 ~~of at least about 23~~, wherein at least about 85% by weight of the kaolin has an esd of less than about 1 μm , the amount of the kaolin having an esd of less than about 0.25 μm ranges from ~~[[about]]~~ 35% to about 60% by weight, ~~and a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using an "A" bob.~~

Claim 2 (Canceled).

Claim 3 (Currently Amended): The composition according to claim 1, wherein the kaolin has a Hercules viscosity of less than about ~~[[2750]]~~ 4000 rpm at 18 dynes at ~~[[66%]]~~ 63% solids when measured using the "A" bob.

Claim 4 (Canceled).

Claim 5 (Original): The composition according to claim 1, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 6 (Original): The composition according to claim 1, wherein at least about 95% by weight of the kaolin has an esd of less than about 2 μm .

Claim 7 (Original): The composition according to claim 1, wherein at least about 96% by weight of the kaolin has an esd of less than about 2 μm .

Claim 8 (Original): The composition according to claim 1, wherein at least about 98% by weight of the kaolin has an esd of less than about 2 μm .

Claim 9 (Original): The composition according to claim 1, wherein the amount of the kaolin having an esd of less than about 2 μm ranges from about 94% to about 99% by weight.

Claim 10 (Canceled).

Claim 11 (Original): The composition according to claim 1, wherein at least about 88% by weight of the kaolin has an esd of less than about 1 μm .

Claim 12 (Original): The composition according to claim 1, wherein at least about 92% by weight of the kaolin has an esd of less than about 1 μm .

Claim 13-15 (Canceled).

Claim 16 (Currently Amended): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about ~~[[23]]~~ 35 to about ~~[[60]]~~ 49.

Claim 17 (Currently Amended): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about 40 to ~~about 50~~ 49.

Claim 18 (Currently Amended): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about ~~[[30]]~~ 35 to about 40.

Claim 19 (Currently Amended): The composition according to claim 1, wherein the amount of the kaolin having an esd of less than about 0.25 μm ranges from ~~[[about]]~~ 35% to about 50% by weight.

Claim 20 (Currently Amended): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about 45 to about ~~[[50]]~~ 49, at least about 96% by weight of the kaolin has an esd of less than about 2 μm , at least about 85% by weight of the kaolin has an esd of less than about 1 μm , and the amount of the kaolin having an esd of less than about 0.25 μm ranges from ~~[[about]]~~ 35% to about 45% by weight.

Claim 21 (Currently Amended): A method of refining kaolin, comprising:

(a) providing a degrittled kaolin slurry comprising a sedimentary kaolin having a particle size distribution such that at least about 70% by weight of the kaolin has an esd of less than about 2 μm ;

(b) classifying said kaolin slurry to obtain a kaolin having a shape factor of ~~at least~~ ranging from about 20 to 49, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 22 (Original): The method according to claim 21 wherein the degrittled kaolin slurry comprises a substantially stackless sedimentary kaolin.

Claim 23 (Original): The method according to claim 21, wherein the kaolin has a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using the "A" bob.

Claims 24 and 25 (Canceled).

Claim 26 (Original): The method according to claim 21, wherein the amount of the classified kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight.

Claim 27 (Original): The method according to claim 21, wherein the degrittled kaolin slurry provided in (a) comprises at least about 80% by weight of the kaolin having an esd of less than about 2 μm .

Claim 28 (Original): The method according to claim 21, wherein the degrittled kaolin slurry provided in (a) has a shape factor of at least about 10.

Claim 29 (Original): The method according to claim 21, further comprising a wet media grinding step prior to (b).

Claim 30 (Original): The method according to claim 29, wherein the wet media grinding consumes in the range of 0 to about 35 Kw-hr/ton of energy.

Claim 31 (Original): The method according to claim 29, wherein the wet media grinding consumes in the range of about 35 to about 200 Kw-hr/ton of energy.

Claim 32 (Original): The method according to claim 21, further comprising subjecting the degrittled kaolin slurry to a beneficiation step selected from: selective flocculation, ozone treatment, flotation, magnetic separation, leaching, or any combination thereof.

Claim 33 (Original): The method according to claim 21, further comprising subjecting the classified kaolin to a beneficiation step selected from: selective flocculation, ozone treatment, flotation, magnetic separation, leaching, or any combination thereof.

Claim 34 (Previously Presented): The method according to claim 21, wherein the classifying in (b) comprises removing a portion of the fines.

Claim 35 (Original): The method according to claim 21, wherein the degrittled kaolin slurry provided in (a) has a shape factor of at least about 15 and at least about 80% by weight of the kaolin in the degrittled kaolin slurry has an esd of less than about 2 μm .

Claim 36 (Original): The method according to claim 34, wherein after removing the portion of fines, the particle size distribution ranges from about 25% to about 60% by weight less than about 0.25 μm .

Claim 37 (Original): The method according to claim 34, wherein after removing the portion of fines, the particle size distribution is about 40% by weight less than about 0.25 μm .

Claim 38 (Currently Amended): A method of refining kaolin, comprising:

(a) providing a degrittled ~~Kaolin~~ kaolin slurry having a shape factor of at least about 10 and including at least about 80% by weight particles having an esd of less than about 2 μm ;

(b) wet media grinding the degrittled kaolin slurry consuming in the range of from about 10 to about 200 Kw-hr/ton of energy; and

(c) classifying the slurry to a fine fraction wherein from about 96% to about 98% by weight of the classified kaolin has an esd of about 2 μm and the classified kaolin has a shape factor of less than or equal to 49.

Claim 39 (Canceled).

Claim 40 (Original): The method according to claim 38, wherein the degrittied kaolin slurry provided in (a) has a shape factor of at least about 20.

Claim 41 (Original): The method according to claim 38, wherein the degrittied kaolin slurry provided in (a) has a shape factor of at least about 30.

Claim 42 (Original): The method according to claim 38, wherein the degrittied kaolin slurry provided in (a) has a shape factor of at least about 40.

Claim 43 (Currently Amended): The method according to claim 38 ~~in part (c)~~, wherein the amount of the kaolin in part (c) having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight.

Claim 44 (Original): The method according to claim 38, further comprising spray-drying the fine fraction.

Claim 45 (Original): The method according to claim 38, wherein the kaolin slurry is subjected to a beneficiation step selected from: selective flocculation, ozone treatment, flotation, magnetic separation, leaching, or any combination thereof.

Claim 46 (Original): The method according to claim 38, further comprising leaching the kaolin fine fraction and filtering and drying the leached kaolin fine fraction.

Claim 47 (Currently Amended): A coated paper comprising:

a fibrous substrate; and

a coating on the substrate comprising kaolin having a shape factor of at least about ~~[[23]]~~ 32, wherein at least about 85% by weight of the kaolin has an esd of less than about 1 μm , the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight, ~~and a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using an "A" bob.~~

Claim 48 (Original): The paper according to claim 47, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 49 (Currently Amended): The paper according to claim 47, wherein the kaolin has a Hercules viscosity of less than ~~[[1500]]~~ 4000 rpm at 18 dynes at ~~[[69%]]~~ 63% solids when measured using the "A" bob.

Claim 50 (Original): The paper according to claim 47, wherein the coating further comprises calcium carbonate.

Claim 51 (Currently Amended): A method of making a coated paper comprising: coating a fibrous substrate with a paper coating composition comprising kaolin having a shape factor of at least about ~~[[23]]~~ 32, at least 85% by weight of the kaolin has an esd of less than 1 μm , the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight, ~~and a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using an "A" bob.~~

Claim 52 (Original): The method of claim 51, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 53 (Currently Amended): The method of claim 51, wherein the kaolin has a Hercules viscosity of less than ~~[[1500]]~~ 4000 rpm at 18 dynes at ~~[[69%]]~~ 63% solids when measured using the "A" bob.

Claim 54 (Canceled).

Claim 55 (Currently Amended): A method of making a kaolin slurry, comprising: dewatering degrittled kaolin with an evaporator, wherein the kaolin has a shape factor ranging from ~~of at least about 25 to~~ 49, and at least about 85% by weight of the kaolin has an esd less than about 2 μm .

Claim 56 (Currently Amended): A coated paper comprising:

a fibrous substrate; and

a coating on the substrate comprising kaolin having a shape factor of at least about ~~[[23]]~~ 32, at least about 85% by weight of the kaolin having an esd of less than about 1 μm and the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight,

wherein gloss of the coated paper is greater than about 45 TAPPI units.